

**What is Claimed is:**

1. A spacer for a long substrate in the interior of a long tube, wherein a superinsulation material is arranged between the substrate and the tube, said spacer comprising two first rings (3, 4) seated on the substrate (1) and spaced apart at a longitudinal axial distance from one another, a tube section (5) supported on the rings (3, 4) and a second ring (6) located on the tube section (5), wherein the first rings (3, 4), the tube section (5) and the second ring (6) are made of a material that has poor thermal conductivity but high mechanical strength.
2. A spacer as claimed in claim 1, further comprising a superinsulation material (7) between the substrate (1) and the first rings (3, 4).
3. A spacer as claimed in claim 1, wherein the first rings (3, 4), the tube section (5) and the second ring (6) are made of fiber-reinforced plastic.
4. A spacer as claimed in claim 1, further comprising a superinsulation material (7) disposed in the area between the first two rings (3, 4).
5. A spacer as claimed in claim 1, wherein the tube section (5) has a wall thickness of between 0.5 and 2 mm.
6. A spacer as claimed in claim 1, wherein the length of the tube section (5) corresponds to 1 to 2 times the outside diameter of the tube (2).

7. A spacer as claimed in claim 1, wherein the gap between the tube section (5) and the tube (2) is filled with superinsulation material (7) on both sides of the second ring (6).

8. A spacer as claimed in claim 1, wherein the first rings (3, 4), the tube section (5) and the second ring (6) are made as half shells.

9. A spacer as claimed in claim 8, wherein the half shells, respectively, of the first rings (3, 4) of the tube section (5) and the second ring (6) form a unit.

10. A coaxial tube system for transporting media at very low temperatures using a spacer as claimed in claim 1 comprising a corrugated interior metal tube (1) and a corrugated exterior metal tube (2), wherein the annular space between the interior tube and the exterior tube is evacuated.